DOCUMENT RESUME

ED 151 098 PS 009 813

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TITLE Open Framework Approaches to Developing Programs for Early Childhood Education.
INSTITUTION Queensland Dept. of Education, Brisbane (Australia).
PUB DATE Oct 77
NOTE 28p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Curriculum Development; *Curriculum Planning; Developmental Psychology; *Early Childhood Education; Educational Theories; Foreign Countries; Individual Needs; Kindergarten; *Models; *Open Education; Preschool Programs; Primary Grades
IDENTIFIERS *Australia (Queensland); High Scope Educational Research Foundation MI; *Open Framework; Queensland Interactional Curriculum; Weikart (David)

ABSTRACT

This booklet presents a discussion of the use of an open framework approach to curriculum development for children aged 4 to 8. The material was developed during a seminar (sponsored by the Queensland, Australia, Department of Education) focusing on the curriculum development approach developed by David Weikart in the High/Scope Educational Research Foundation program. Chapter I outlines the philosophy of the open framework approach. This approach emphasizes the initiation of educational experiences by both adults and children. The child's development and individuality are considered in planning for "key experiences" which form the basis of a child's later development and learning. The model for the open framework approach includes the consideration of values and goals, initiative, environment, experiences, and educational outcomes. Chapter II presents a discussion of curriculum development for young children based on this model. Included are a discussion of the High/Scope Cognitively Oriented Curriculum and a modification and expansion of this approach developed for consideration in the preschools and lower primary schools in Queensland. The Queensland Interactional Curriculum is based on the developmental theories of Piaget and Erikson and follows the open framework model. Concrete suggestions for implementing the approach in the schools are presented. (BD)

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# OPEN FRAMEWORK APPROACHES TO DEVELOPING PROGRAMS FOR EARLY CHILDHOOD EDUCATION

PS 009813

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October 1977

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Gerald Ashby

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

# FOREWORD

Most teachers will be familiar with the problems that have beset curriculum development, program planning and implementation in early childhood education in recent years. The present paper opens up this issue by exploring curriculum within the context of open framework approaches to planning for teaching and learning. More generally, the paper is intended to stimulate thinking about the curriculum, in its broadest sense, in early childhood education.

Open framework approaches share a common concern, to elicit and respect contributions from a variety of sources. Thus, for example, parents, members of the community, support personnel, teachers from other levels of education, and the children themselves are all viewed by the teacher as important potential sources contributing to the curriculum. In this light, open framework approaches provide teachers with both a means of incorporating such contributions into their programs and a means of using child development theory to ensure that the experiences provided by way of such programs are stimulating and valuable.

Of course, many teachers have evolved satisfactory ways of developing and implementing meaningful programs for young children. There are indications, however, that numbers of teachers are not satisfied with their present methods and wish for more assistance in this regard. It is hoped that the approaches outlined in this paper may provide this assistance.

A word of caution should be given, however. There is no simple panacea for curriculum development in early childhood education. Major responsibility must fall upon the individual teacher for analysing local needs, stimulating contributions and planning educational provisions to meet needs. Open framework approaches do not change this situation. Where they might help is in providing ideas about what is involved in the task.

It is the central purpose of this paper to introduce teachers to the ideas underlying open framework approaches to early childhood education. Hopefully, if these ideas strike a responsive chord, teachers will be motivated to engage in further exploratory work, both individually and in small group studies, to tease out further the implications and practical strategies involved in developing their own programs in early childhood education.

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# PREFACE

The material on which this document is based, was developed during a Queensland Education Department seminar held from 24 October until 12 November 1976. The purpose of the seminar was to examine the concept of open framework approaches to curriculum, looking particularly at the work of the High/Scope Educational Research Foundation. Dr David P. Weikart, President of the High/Scope Educational Research Foundation, came to Brisbane at the invitation of the Director of Pre-School Education to act as consultant to the seminar participants.

Over the last 15 years, Dr Weikart has been involved in the development of the Cognitively Oriented Curriculum, an open framework. This curriculum was originally developed for use with pre-school children and has since been successfully implemented with children aged from three years to adolescence. As an open framework curriculum, it offers a structure within which to plan and evaluate; a structure which encourages initiation of experiences by both adults and children.

Representatives of the Pre-School, Primary and Special Education Divisions; and of the Curriculum Branch worked together with Dr Weikart over the three-week period to evaluate the concept of the open framework as a tool for Queensland teachers developing and implementing educational programs for children aged from four to eight years. The open framework approach, at it is presented here, represents the work of those involved in the seminar and subsequent revisions made by members of the Open Framework Committee with editorial assistance from officers of the Curriculum Branch.

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# 1. AN OPEN FRAMEWORK FOR DECISION-MAKING IN EARLY CHILDHOOD EDUCATION

The concept of an open framework can be contrasted against the notion of the syllabus which restricts the teacher's freedom of choice in designing experiences that are appropriate for a particular group of children, or for individuals within a group. A syllabus can be viewed as a 'closed' or 'semi-closed' framework. Queensland Department of Education documents such as the language arts syllabus provide a 'semi-closed' framework. So called 'teacher proof' kits or programs attempt at complete closure by claiming that they will only be successful if the teacher does not deviate from the prescribed wording and activities set out in the materials. Other syllabus materials which indicate what should be taught and in which order, but give the teacher freedom to work out how to introduce and work with the materials, are 'semi-closed'.

According to the High/Scope Educational Research Foundation, an open framework can be described as follows:

> 'A framework offers teachers and childcare workers a structure within which to plan and evaluate a developmental program . . . An open framework . . . encourages initiation of experiences and activities by both adults and children and becomes tailored to the resources and cultural heritage of the community.' (1974, p. 1)

The open framework for developing programs places high emphasis upon the individual teacher's initiative in meeting the developmental and educational needs of the children who comprise the group or class. It is the responsibility of the individual teachers to judge where children are in terms of development, and which steps should be taken to assist them to move towards more complex levels of activity. In doing so, the open teacher draws upon developmental psychology as one important tool in planning and evaluating. Another tool is the concept of key experiences.

Key experiences, within the concept of an open framework, approximate to the role of developmental tasks as described by Havighurst:

> 'A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks.' (1974, p. 2)

Such developmental tasks may be fulfilled in a variety of ways depending upon the child and his environment. Similarly, key experiences are significant learning accomplishments which are to be mastered by each child. The timing and means by which mastery is achieved, together with the form of such mastery, will vary from child to child. The teacher who plans for key experiences must exercise considerable judgement as to the most appropriate way of assisting the educational growth of the individual child.

A pre-requisite to any framework within an educational setting is the delineation of the values to be represented by the educational program. It is important that the values be made explicit in order that the individual teacher has a clear understanding of those commitments which form the system-wide values which are to be represented by all educational settings that comprise the system. In Queensland one description of this value position, with respect

to the early years of children's schooling, is contained in the publication *An Interactional Model for Early Childhood Education* (Halliwell, 1977).

Beyond commitment to certain values a number of other elements come into play. These revolve around two central characters involved in an educational setting, the teacher and the child. Both teacher and child initiative are seen as equally important. Each influences, and is influenced by, the other. On the side of the teacher, certain formal knowledge and skills are brought into play in making and implementing decisions. These would include the ability to use developmental psychology, educational knowledge and the structure of the disciplines of knowledge to facilitate educational growth. On the side of the child, developmental status involving not only the stage of development but also developed knowledge, attitudes and skills, influence both the form and style of initiative.

## Overview of the Open Framework Approach

The elements of the open framework approach to developing educational programs are set out in figure 1, and repeated on the fold-out inside the back cover. In figure 1, the interaction between a learner and a teacher is depicted by the arrows shown at the sections representing initiative, environment, experiences and outcomes. These are the sections representing the dynamic aspects of the program, the things that happen, and the resources used. The narrower bands correspond to the decision-making aspects, the values, theories, strategies and evaluation techniques on which the teacher relies for planning, implementing and evaluating an educational program.

## AN OPEN FRAMEWORK FOR DECISION-MAKING IN EARLY CHILDHOOD EDUCATION

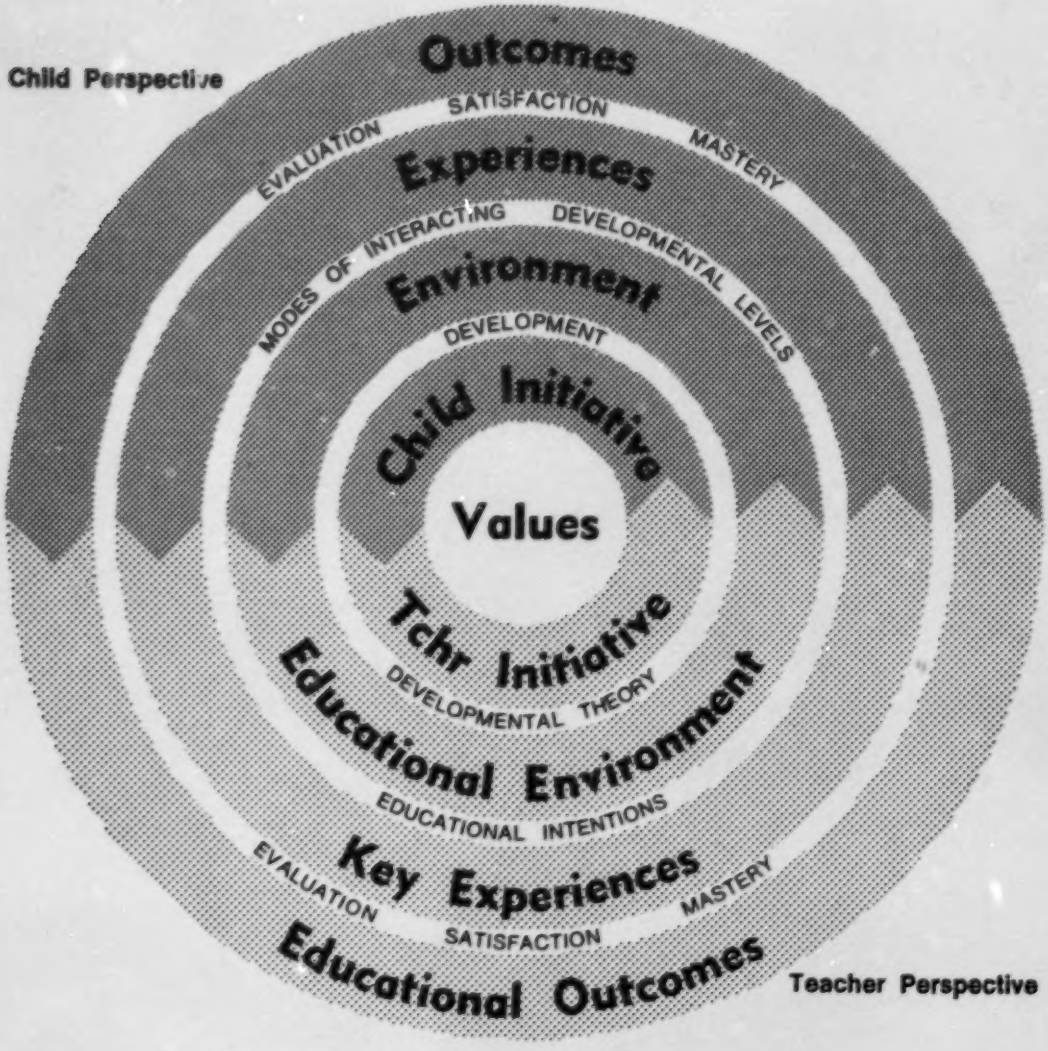



Figure 1

Movement in this framework is from the centre, from the values, outwards. The elements of the open framework represented in the diagram will be discussed on the following pages.

## Values

In the open framework, values are given a central role for their influence pervades the whole program. From the teacher's perspective, values determine the selection of educational goals, the teacher and child initiatives to be encouraged, the selection of theoretical principles, the educational environment established, the choice of teacher activity to facilitate key experiences, and the view taken on educational outcomes and their evaluation.

For example, acceptance of the importance of both adult and child initiative at the centre of the model will influence the choice of psychological, educational and other theories which guide the establishment of an educational environment. The use of conditioning techniques, for instance, where the learner is placed in the role of responder only, will have less relevance for education within an open framework than will theories that emphasise interaction as the basis for learning. At a later stage in the framework, this same value for initiative will influence which factors are considered important in planning for educational growth. Adherence to the value placed on personal initiative implies that the child's interests and concerns are given equal weight with the demands made by teacher intentions. Again, outcomes must be evaluated in ways that are consistent with the value for initiative. In the open framework, this will lead to an accent on personal evaluation by teachers, and by children.

From the child's perspective, values are imbedded in the concept of self which each child brings into the learning situation. These values, in the young child, reflect to a large extent the child's response to the expectations of parents. Parental values therefore, have an important influence on which experiences the child engages in, and how the child evaluates the outcome of these experiences.

### *Derivation of goals from values*

Planning programs using the open framework approach will always begin with an explicit statement of the values which guide further decision-making. Educational goals are closely related to the values which guide the open framework approach and will be stated in a way which indicates their relationship with the values underpinning the program.

## Initiative

Figure 1 shows the importance of both the child and the teacher in an open framework, for the assumption is made that the outcomes of interaction between teacher initiative and child initiative are the basis of the educational process.

The child, entering into an open framework curriculum, brings to the situation personal modes for interacting with the world in a meaningful way. These modes for interacting have developed from innate possibilities to behave in certain ways, and from the outcomes of all previous interactions with the environment. Personal cognitive styles, stages of development, differing physical reactions, family expectations, and cultural background are all important aspects of individual modes for interacting with the environment and influence the initiatives the child will make in the educational setting.

For the young child, these modes have been developed within a family setting and will continue to be influenced most directly by that family setting. An open framework curriculum then, must recognise the influence of family background on personal modes of interaction, and therefore the form that child initiative will take in the educational setting. Involving the family in the educational process would be essential for ensuring that values which underlie

interactions in the family setting and those that underlie interactions in the school setting complement one another.

The teacher also brings personal modes for interacting into the educational setting. For the teacher, as for the child, these have developed from innate possibilities as well as from previous interactions with the environment. In the educational setting, the teacher uses these modes for interacting in order to facilitate the educational growth of children in ways which are congruent with the teacher's personal and educational values. Children working in an open framework program could be expected to be using their modes for interacting in order to achieve satisfaction and mastery within the limits imposed by the educational environment.

Professional training, personal philosophy and the cultural background of the teacher are important determinants of teacher behaviour and play a part in influencing the initiatives made by the teacher in the educational setting.

Implicit in the model is the basic assumption that both the child and the teacher will initiate interactions with the physical and psycho-social world leading to educational experiences, and in doing so will acknowledge a mutual respect for, and acceptance of, the individuality of other people.

## Development

Decisions about the way in which interactions are structured, and the type of environment to be provided, will depend on each teacher's view of how children grow cognitively, affectively and physically. Theories which support the idea of each child moving at his own pace through clearly defined stages of development in growth, and thus exhibiting different levels of functioning at each stage, are seen to have most to offer to an open framework for early childhood education.

Each child develops a personal mode for interacting in the world. In part, this development is due to a sequential growth of knowledge about self and environment, and skills for dealing with self and environment. This aspect has already been discussed. Another aspect of growth is the development of particular ways of interacting which are stage bound. A child at a certain level is seen as being capable of adjusting in a particular way to the demands which the educational environment makes, and to the demands which he himself makes on the environment.

Acceptance of the existence of developmental levels requires that the teacher's concern should be for each individual child—to encourage and to provide opportunities to create personal reality through the utilisation of particular ways of interacting. By being aware of the kinds of behaviour which are associated with a certain stage of development, the teacher is in a position to take an initiating role, not in planning activities for the child to do, but in utilising a child's own initiatives in a way which broadens the control exhibited over the environment. As well, understanding of the stages of development allows the teacher to evaluate the types of behaviour which a child exhibits, and to assess progress over a period of time to ensure that the educational environment is supportive of the present stage of development.

## Environment

The environment is the sum total of the factors which influence the child interacting within the setting provided by the teacher. From the child's perspective, the learning environment includes all those objects, activities and people interacted with. From the teacher's perspective,

the educational environment includes ways that space, time, materials, activities and interactional patterns are structured with a view to facilitating educational growth.

Principles derived directly from developmental theory and adhering to the values underpinning the curriculum guide the choice of objects, activities and situations in the educational setting. The teacher's personal modes for interacting play a role in deciding how these principles will be applied in the practical situation. Where the cultural and physical settings are similar, it may be possible to generalise from the practical applications made by teachers, and this can provide a basis for sharing ideas in curriculum development.

Factors which need to be considered when establishing a learning environment include the quality of social interaction; opportunities for child initiation; the physical environment both indoors and outdoors; routines and interactional patterns; and the cultural expectations of the community.

## Making the Match

The child, as initiator of experiences within the environment established by a teacher, will select those that are appropriate to his developmental level and modes for interacting.

The teacher, as initiator of experiences, is concerned with facilitating 'educational growth'; that is 'growth' in directions laid down by the values and goals of the program. Educational intentions then, are plans for experiences which the teacher considers will contribute to educational growth in a child. Such plans are made on the basis of professional expertise both in observing and interpreting child behaviour, and in sequencing experiences to provide for continual challenge, satisfaction and mastery in the child.

Probably the most challenging aspect of teaching within the open framework approach is that of determining how to facilitate a match between the child's modes for interacting, his developmental level, and the educational intentions set down by the teacher. Hunt (1961) refers to this as the 'problem of the match', for the teacher has to determine that balance between what is familiar and what is unfamiliar to the child in order to engage the child's interest and to challenge him toward increased mastery. The teacher then, will be concerned with structuring the environment in ways which are responsive to the child's interest, and which encourage children to engage in activities, tasks or encounters that are personally challenging and satisfying, and which facilitate educational growth.

## Experiences

Within the broad range of experiences a child has in the learning environment, many will contribute to educational growth. These are termed 'key experiences'. Key experiences are those which foster growth in the directions determined by the values and goals of the program. In the open framework approach, the teacher's role would be predominantly that of ensuring that the learning environment is designed to facilitate key experiences. The child's role would be that of initiating interactions with the learning environment that are personally meaningful. Both teacher initiative and child initiative are essential features of key experiences.

A key experience indicates an encounter, between the learner and the environment, which the teacher considers will facilitate growth in desired directions, a task which will increase interest in a particular activity, a problem with which a child will be able to cope. Signs of increased mastery and satisfaction in the child's interaction with the learning environment will indicate successful planning of key experiences. The teacher will observe a multiplicity of

outcomes even when she plans similar experiences for a number of children, for each child incorporates the experience into his repertoire of behaviour in a way that will be personally meaningful.

## Evaluation

Formalising evaluation techniques presents dangers as well as offering benefits. The benefits lie in ensuring that what is intended is, in fact, taking place. The dangers are that the use of inappropriate techniques may distort educational intentions, and negate the values which guide the program.

In the open framework approach, evaluation will be concerned with self-evaluation for both teachers and learners. For the teacher, this will involve the use of techniques which indicate program effectiveness; which give information about the growth and development of children in a form that can be used for individualised planning; and which help the teacher obtain increased satisfaction from her work. For the child, techniques will need to be developed which encourage each child to examine his experiences in the learning environment in terms of their contribution to personal satisfaction and mastery.

In the open framework approach, emphasis is placed on anecdotal reports, check-lists devised by the teacher and questioning techniques. However standardised tests still have a place if these are able to be used in ways which are congruent with the values of the open framework program.

## Outcomes

Outcomes are related to the educational values which pervade a curriculum developed within the philosophy of an open framework. The open framework further implies that the expression of growth and development in the directions specified by the values will take a variety of forms, for the child, as well as the teacher, initiates experiences.

Educational growth occurs as children have key experiences within the learning environment. Further teacher and child initiations are then possible on the basis of the outcomes of these encounters. This concept of outcomes may be likened to the effect produced by a pebble falling on the surface of water; just as the ripples are deflected back to the focal point by the edge, so the actualisation of an outcome causes reflection back to the focal point of the open framework model—the values which determine the type of teacher and child initiatives encouraged.

The following word-picture indicates how child initiative and teacher initiative interact in determining how the outcomes of educational experiences are received, and related back to the values guiding the program:

> 'Joe was unable to read the signs the teacher had pasted on objects in the outdoor area. Four of Joe's mates had shown much delight in their ability to read these signs and the teacher responded to their interest by facilitating further experiences with the written word. Joe, however, after several unsuccessful attempts to read the signs, now studiously avoided any reference to them. Careful observation of Joe's behaviour indicated that he was operating at a less complex cognitive level than his four friends and planning for key experiences in communication would need to take a different form for Joe.'

# 2. DEVELOPING PROGRAMS FOR EARLY CHILDHOOD EDUCATION WITHIN THE OPEN FRAMEWORK APPROACH

The material in this section provides a brief introduction to ways in which teachers can use the open framework to develop and implement a program. In this publication the terms 'curriculum' and 'program' are both used to refer to what happens when a teacher gives substance to the framework as it is outlined in part 1.

The diagram chosen to illustrate the open framework approach indicates where the aspects of teacher decision-making discussed in part 2 fall. The broad bands show the dynamic aspects of curriculum, indicating people interacting in educational environments and undergoing experiences which lead to educationally valuable outcomes. The broad bands could be said to correspond to the commonly-used definition of curriculum as 'all the experiences the learner has under the guidance of the school'. (Short and Marconnit, 1969, p. 4)

In the narrow bands another perspective on the same curriculum is taken, the bands specifying, in turn, the values and goals, the theories, the teacher activity and the evaluation criteria used by teachers to plan and implement the curriculum.

A guide to decision-making by teachers working within an open framework approach would contain therefore, sections which correspond to the narrow bands in figure 1. The two curricula outlined in the following pages have developed these sections in different ways whilst still working within the philosophy of an open framework.

## 2.1. THE HIGH/SCOPE COGNITIVELY ORIENTED CURRICULUM

The Cognitively Oriented Curriculum has been under development within the High/Scope Educational Research Foundation over the past 15 years, and has been successfully implemented in some pre-schools and elementary schools throughout North and South America.

## 2.1.1. Values and Goals

Based on the importance attached to the personal integrity of the child, and to the need for children to freely and actively explore the environment, the educational goals of the Cognitively Oriented Curriculum (High/Scope, 1977, p. 16) are as follows:

(i) To develop the child's ability to make decisions about what he is going to do and how he is going to do it, and to plan use of time and energy.

(ii) To develop the child's self-discipline and his ability to identify personal goals and to pursue and complete self-chosen tasks.

(iii) To develop the child's ability to work with other children and adults so that work done is a result of group planning, co-operative effort, and shared leadership.

(iv) To develop the child's ability to use a variety of skills in the arts, physical movement, and knowledge of objects as a base of educational concepts.

(v) To develop the child's ability to express himself—to speak, write, dramatise, and graphically represent his experiences and to communicate these experiences to others, and to accept a need for competency of performance.

(vi) To develop the child's ability to comprehend others' self-expression by reading their writing, and understanding artistic and graphic representatives.

(vii) To develop the child's ability to apply the reasoning capacity he has developed in a wide range of naturally occurring situations and with a variety of materials.

(viii) To develop the child's spirit of inquiry and openness to knowledge and the points of view of other people.

## 2.1.2. Developmental Theory

It is a pre-requisite of an open framework that the curriculum developed be based on a sound developmental theory. Those involved in the development of the Cognitively Oriented Curriculum believed that Piaget's theory of mental development would provide a theoretical framework for their curriculum that would give each teacher reasons for initiating activities, guidelines on how to implement them, and a set of learning goals from which the teacher could develop activities. These goals are sequenced according to 'levels of representation' from concrete experience and symbolisation.

The Cognitively Oriented Curriculum is concerned primarily with the development of symbolic functioning. It is based on the assumption that intellectual growth is the result of the child's ability to create meaningful representations of himself and his environment, and to relate these representations to each other.

The focus is on the process of learning rather than on subject matter, and particular attention is paid to the developmental levels of individual children.

Piaget's theory puts forward the proposition that all children go through developmental stages which are pre-determined. The Cognitively Oriented Curriculum has focused on this concept and has made the assumption that although a child's growth through these stages cannot be accelerated, his cognitive structures can be enriched through the experiences provided.

## 2.1.3. Making the Match

The teacher's role in the Cognitively Oriented Curriculum is to have in mind certain goals derived from Piaget's work; to sequence activities through which the child builds his ability to represent; and to observe whether children are operating strictly on the motoric level, or whether the verbal levels are also being incorporated.

The High/Scope Educational Research Foundation has developed the three-sided framework for planning shown in figure 2, to symbolise that the teacher matches these concerns in planning for individual children.

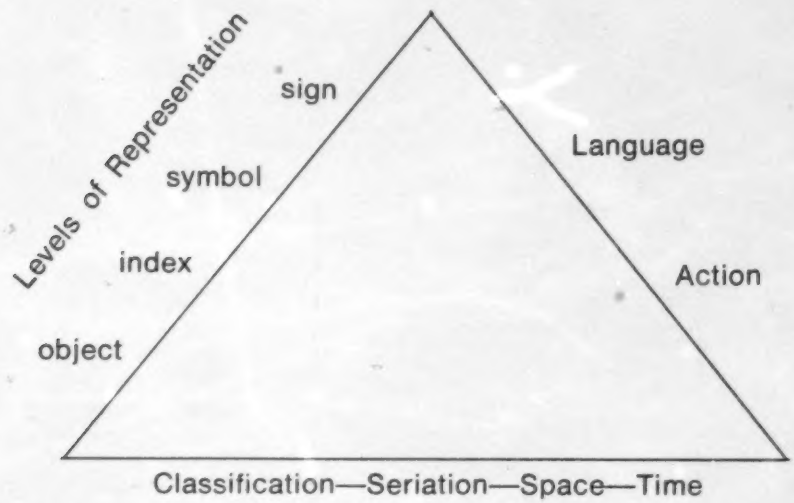



Figure 2

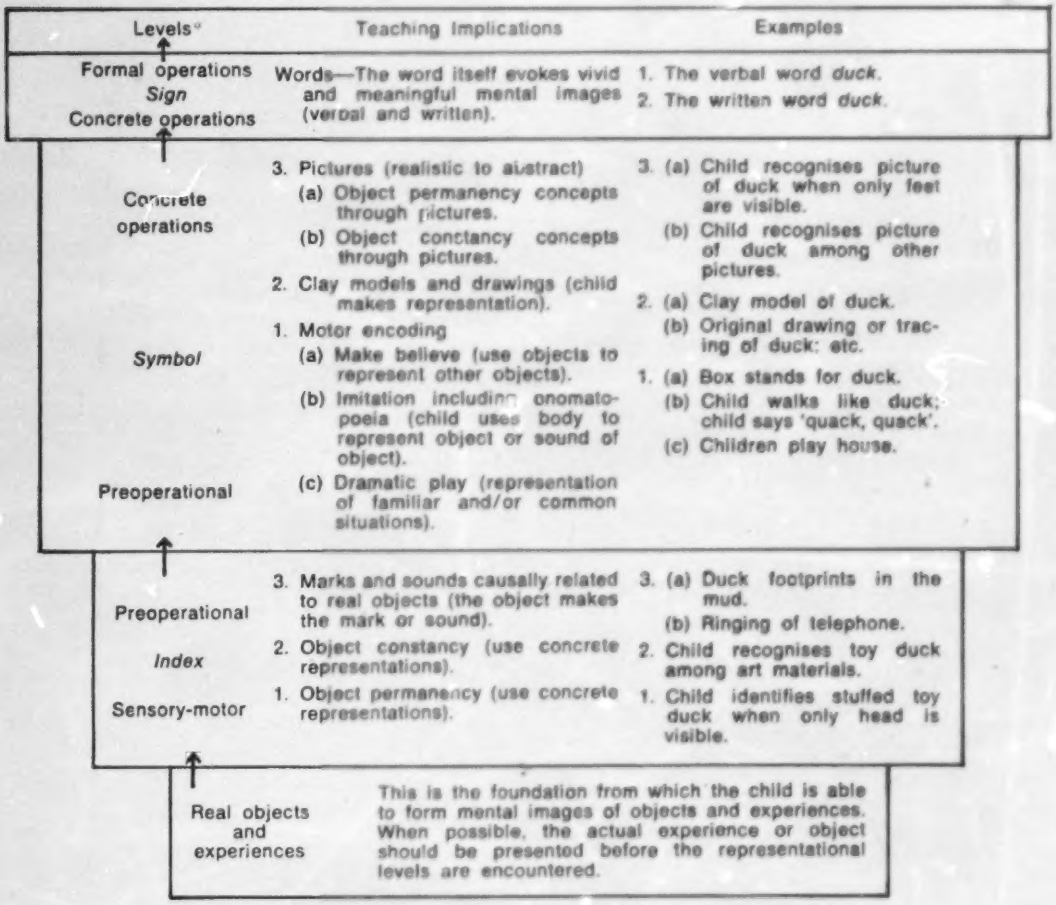
### Modes of Operation—Verbal and Motoric

Language is important in constructing and extending mental representations although Piaget contends that language is neither a necessary pre-requisite, nor a necessary consequence of the child's ability to create representations. However, once he has acquired language and can operate at the verbal as well as motoric level, the child possesses an extremely efficient tool for assimilating and manipulating the environment.

By observation of the child's level of representation, together with knowledge of his performance at the motoric/verbal level, the teacher may plan key experiences to 'match' the child's level of functioning.

## Developmental Stages of the Levels of Representation

The following diagram, taken from *The Cognitively Oriented Curriculum* (Weikart *et al*, 1971, p. 5), best illustrates the way in which the High/Scope Educational Research Foundation has used Piagetian developmental theory to assist the teacher with program planning:


Levels*
Teaching Implications
Examples
Formal operations
Sign
Concrete operations
Words—The word itself evokes vivid and meaningful mental images (verbal and written).
1. The verbal word duck.
2. The written word duck.
Concrete operations
Symbol
Preoperational
3. Pictures (realistic to abstract)
(a) Object permanency concepts through pictures.
(b) Object constancy concepts through pictures.
2. Clay models and drawings (child makes representation).
1. Motor encoding
(a) Make believe (use objects to represent other objects).
(b) Imitation including onomatopoeia (child uses body to represent object or sound of object).
(c) Dramatic play (representation of familiar and/or common situations).
3. (a) Child recognises picture of duck when only feet are visible.
(b) Child recognises picture of duck among other pictures.
2. (a) Clay model of duck.
(b) Original drawing or tracing of duck; etc.
1. (a) Box stands for duck.
(b) Child walks like duck; child says 'quack, quack'.
(c) Children play house.
Preoperational
Index
Sensory-motor
3. Marks and sounds causally related to real objects (the object makes the mark or sound).
2. Object constancy (use concrete representations).
1. Object permanency (use concrete representations).
3. (a) Duck footprints in the mud.
(b) Ringing of telephone.
2. Child recognises toy duck among art materials.
1. Child identifies stuffed toy duck when only head is visible.
Real objects and experiences
This is the foundation from which the child is able to form mental images of objects and experiences. When possible, the actual experience or object should be presented before the representational levels are encountered.

* Piaget's terms designating three levels of representation. The teaching implications, however, are not an exhaustive listing or an absolute sequence.

Figure 3

## Experiences Derived from Piagetian Theory

The intention of the High/Scope Cognitively Oriented Curriculum (High/Scope, 1977) is that children will be encouraged to extend and enrich their mental abilities through key experiences within the following areas:

(i) **Active Learning:** Active learning is a necessary condition for cognitive restructuring and hence for development. Some examples for planning are:

(a) manipulating, transforming and combining materials;

(b) acquiring skill through the use of tools and equipment.

(ii) **Language:** Language is one part of the process by which children learn to understand and represent relations among objects and events. Some examples for planning are:

(a) talking with other children and adults about personally meaningful experiences;

(b) describing (and listening to others describe) objects, events and relations.

(iii) **Experiencing and Representing:** Children represent their experiences, what they think and feel about people, objects, events and social roles, in many different ways. Some examples for planning are:

(a) relating models, photographs and pictures to real places and things;

(b) making models, drawings, paintings and stories to represent experiences.

(iv) **Classification:** Classification involves exercising capacities to observe attributes to objects, to note similarities between things, to put like objects together, and to distinguish the meaning of 'same' and 'different'. Some examples for planning are:

(a) using and describing something in several different ways;

(b) investigating and labelling attributes of things.

(v) **Seriation and Number:** Seriation is the process of arranging objects or ideas in order according to variations in one of their properties. The two pivotal concepts for understanding of number are one-to-one correspondence and conservation.

(vi) **Spatial Relations:** Young children need to experience and represent spatial relations and solve spatial problems in order to master the simpler spatial skills grown-ups take for granted. Some examples for planning key experiences are:

(a) learning to locate things in the classroom, school, neighbourhood;

(b) experiencing and describing the relative positions of things.

(vii) **Time:** As young children describe past events in words, they are strengthening their ability to understand and deal with the continuity of time. Some examples for planning are:

(a) noticing, describing and representing the order of events;

(b) experiencing and comparing time intervals.

(viii) **Feelings:** The way children feel about themselves, their world, and their place in that world is largely affected by their own competence and success. Some examples for planning are:

(a) solving problems as they arise in self-chosen activities;

(b) anticipating and preparing for what is going to happen next.

## 2.1.4. Evaluation

The High/Scope Educational Research Foundation has developed checklists which correspond to the areas within which they plan key experiences for children. These checklists look at the extent to which the teaching-team is providing for key experiences in their learning environment; and the way the teaching-team operates to ensure that key experiences take place.

The High/Scope Child Observation Record has been designed for the purpose of evaluating student progress as well as for helping teachers focus upon areas of the Cognitively Oriented Curriculum. Other evaluation checklists look at teacher competency, parent programs, and in-service education.

## 2.1.5. Implementation

Two important strategies used in implementing the High/Scope Cognitively Oriented Curriculum are the 'daily routine' and the 'teaching team'.

### The Daily Routine

The material in this section is taken from the Elementary Education Series publication *The Cognitively Oriented Curriculum: A Teacher's Guide to the Daily Routine* (High/Scope, 1975).

#### *Principles*

Four principles underlie the daily routine. These are:

(i) The daily routine is designed to provide consistency. A consistent routine provides direction for children and helps them develop internal control.

(ii) The daily routine is focused first on the child's need for active involvement and decision-making and second on the teacher's need for an orderly setting in which to instruct.

(iii) Through the plan-work-evaluate cycle of the daily routine, children become responsible for their own learning.

(iv) The daily routine provides for a variety of interactions among children and adults. Time is provided for the child to work alone, individually with the teacher, in small groups, in large groups, and with other children.

#### *Planning*

During planning time children decide what they are going to do. They talk about and write down the projects and activities they wish to engage in. They decide what materials they will need and how to go about the work they have set for themselves.

#### *Work*

During work time children do the projects and activities they have planned. With the assistance and support of adults and possibly other children, a child may build with wood in the construction area, paint pictures or model clay in the art area, or begin the production of a play by collecting materials in the house or dress-up area. At the end of work time, children return materials and tools to their places in the areas and store uncompleted projects.

#### *Representation and Evaluation*

Children represent their work time experiences by making models or pictures and by dictating or writing stories.

Each child evaluates his work with the teacher by presenting his model or picture and reading his story to a small group of children. He answers questions from other children and the teacher about what he has done and whether he thinks he has done a good job.

#### *Group Activities*

Teachers provide experiences which introduce concepts, materials, and activities to children in small and large groups. These teacher-initiated activities expand the possibilities for children's

work. They provide specific skills related to projects children have undertaken. They also provide information to teachers about the children's abilities and interests.

Planning, work, representation, evaluation, and group activities, whether they occur one or more times each day, should each comprise a specified portion of the whole day. For example: planning, 15%; work, 40%; representation and evaluation, 20%; and group activities, 25%.

## The Teaching Team

The material in this section has been taken from the publication *Teachers' Guide to Team Planning and Child Observation* (High/Scope, 1974).

A teaching team . . . is a group of adults who work together in a classroom to provide a learning environment for children. Each adult on the team shares responsibility for each child's growth and well-being. A teaching team may include a curriculum assistant, teachers, paraprofessionals, specialists, and others who are involved in the daily activities of the class. By virtue of being part of the teaching team all these adults are equally important contributors to the program; together they determine the activities and focus for each day and for each child.

Team planning is the process of observing needs and structuring ideas for classroom use. Ideas such as making a construction area, or publishing a class paper, or using the community to extend children's interests can be developed and scheduled through the interaction of adults.

Planning is half the job. Teachers who agree on and plan for a specific activity or program goal evaluate afterwards. Sometimes activities don't work, or goals are beyond the developmental levels of the children, or materials don't suit their intended purpose. These kinds of problems are often the most instructive and essential for a team; by evaluating and working out these kinds of problems, teams learn more about children and learning, and become a closer group as a result of their joint effort.

Team planning and evaluating includes these elements:

- scheduling the daily routine and specific events;
- deciding on individual and mutual teaching responsibilities and expectations;
- discussing child observations and assessments;
- setting specific daily goals and long term goals;
- selecting materials and planning experiences; and
- discussing and planning for the support of an individual child's project or interests.

### *How to get started*

All the adults should plan together. If the lead teacher does all the talking, or if one person is simply not there, then team planning isn't really happening.

Set aside a regular time every day for team planning and evaluating. This could be release time, time that children go to physical education or music, a part of lunch time, or some time after the children leave school in the afternoon. Stick to the time you set for planning.

## 2.2. THE QUEENSLAND INTERACTIONAL CURRICULUM

This framework for a curriculum is intended as a basic structure which could be of use to teachers and children in State pre-schools and lower primary schools in Queensland.

### 2.2.1. Values and Goals

The Queensland Interactional Curriculum is based on acceptance of the values and assumptions laid down in the Queensland Department of Education publication *An Interactional Model for Early Childhood Education* (Halliwell, 1977). On the basis of the following values and assumptions, three growth areas are isolated for development:

(i) Learning is accepted as an interactional process in which the learner acts on the environment and the environment acts on the learner—learner initiative and teacher initiative are both seen to be important.

(ii) Close liaison between home and school is considered important for both are responsible for the child's growth and development.

(iii) Education involves intention on the part of both learner and teacher that something of value will be learned. The intention of this curriculum is that children will learn to act with autonomy, competency, rationality and sensitivity through the facilitation of key experiences which lead to growth in **communicating effectively, problem solving,** and **acting independently.**

### 2.2.2. Developmental Theory

It is suggested that a curriculum which utilises the developmental theories of both Erik Erikson and Jean Piaget would provide a firm base for determining principles upon which to establish a learning environment. The following principles are drawn from these theorists:

(i) Both theorists emphasise that behaviour within a particular stage is qualitatively different from behaviour within preceding or succeeding stages.
PRINCIPLE: Learning environments must be planned to enrich and extend behaviour within the developmental stage of the children therein.

(ii) Both theorists stress the importance, to learning, of interaction between the child and aspects of the environment that have meaning for that child.
PRINCIPLE: Learning environments must encourage children to initiate interactions; this could be termed active learning.

(iii) Both theorists conceive of developmental stages as hierarchically organised, each stage different from, yet growing out of the previous stage.
PRINCIPLE: Learning environments must allow for interactions at the level which best suits each individual child.

(iv) The stages postulated by each theorist, although focusing on a different aspect of development, can be planned for within the one learning environment for they complement one another.
PRINCIPLE: Planning for personality development and for cognitive development are both important and ought to be considered conjointly, for a child interacts, and therefore learns as a whole person.

(v) A further principle is derived from Hunt (1961) who developed from Piagetian theory the hypothesis that the appropriateness of the match between inner organisations and the circumstances that the child encounters appeared to determine in large part the rate of development.

**PRINCIPLE:** The object of teaching is to plan to make a match between the child's present inner organisational patterns and the educational encounters deemed important by the curriculum.

## 2.2.3. Making the Match

The teacher's role in the Queensland Interactional Curriculum is to plan to match educational intentions (which are derived from the values and theories accepted within the curriculum), the child's developmental level, and the child's individual modes for interacting. Such a match creates 'key experiences'. The following diagram shows how modes of interacting, developmental levels, and educational intentions are related in creating key experiences:

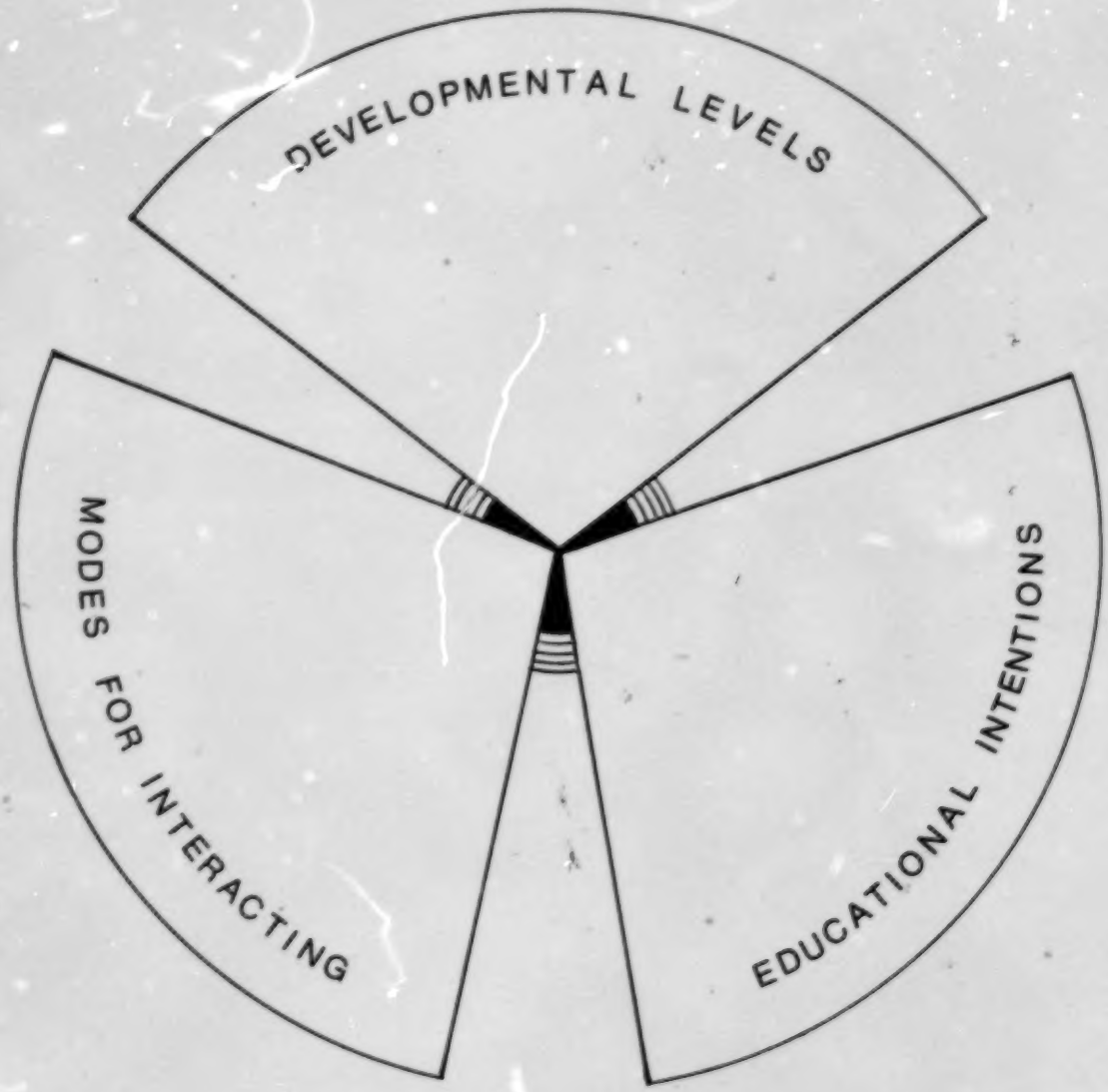



Figure 4

## Modes for Interacting

Individuals have such widely differing ways of behaving, of interacting with things and with people, that it can seem far too complicated to attempt to plan in terms of individuality. The following areas within which individual differences can be observed, are offered as a guide for determining how to plan in terms of individual differences:

(i) LEARNING STYLES: an initial focus for observation would be whether a child approached problem-solving tasks either impulsively or reflectively.

(ii) FAMILY NORMS: the values and expectations that parents have for their children influence what those children choose to interact with.

(iii) PHYSICAL REACTIONS: individual physical abilities play an important role in determining what types of activity a child will be motivated towards. Differences in size and co-ordination provide an initial focus for observation.

(iv) ENDURING INTERESTS: over time a child displays a tendency to be motivated towards certain types of activity.

## Developmental Levels

Following the Piagetian view of cognitive development, children in the early childhood years can be expected to be operating within the sensory-motor and the pre-operational levels, though some may have reached the level of concrete operations. Of particular interest to teachers attempting to determine an educational match are the levels at which children may be expected to represent their understanding of the world. Careful observation will determine whether children will be able to represent at the object level, the index level, the symbol level, or the sign level (see figure 3).

Erik Erikson describes the growth of personality development through eight stages. The first four of these are of most importance to early childhood teachers, for children can be expected to be concerned with one or more of the following central conflicts:

| | | |
|---|---|---|
| trust | v | mistrust |
| autonomy | v | shame |
| initiative | v | guilt |
| industry | v | inferiority |

Concern for personality development seen from the perspective of Erikson's theory will centre around determining the types of social interaction which will help children resolve these conflicts in a manner which will contribute to growth in communicating skills, problem-solving and acting independently.

## Educational Intentions

The intention of this curriculum is that children will be encouraged to learn to act with increased autonomy, competence, rationality and sensitivity through the facilitation of key experiences which lead to growth in communicating effectively, problem solving and acting independently.

(i) **Communicating effectively:** there are two aspects to communication, self-expression and social communication. Here are some examples of key experiences that could be planned for in each of these areas:

(a) Self-expression

- walking, running, climbing;
- singing, dancing;
- representing objects by sound;
- choosing activities, purposes;
- dramatic representation; and
- expressing feelings through art forms.

(b) Social communication:

- parallel play leading into co-operative play;
- listening to and responding to the spoken word;
- representing with drawing, painting, construction, role-playing;
- representing with language—oral and written; and
- using cultural knowledge as a tool for understanding the world.

(ii) **Problem solving:** a Piagetian perspective is taken here in determining key experiences in problem solving. Some examples are as follows:

- classifying objects and symbols for objects;
- seriating objects and symbols for objects;
- locating self and objects in space;
- locating self, objects and ideas in time sequences; and
- experimenting to discover relationships amongst things.

(iii) **Acting independently:** autonomous, competent, rational and sensitive behaviour depends to a large extent on the individual's ability to act independently in the physical, the socio-emotional and the cognitive spheres. Here are some examples of key experiences which will facilitate independent activity:

- co-operating with others whilst pursuing personal purposes;
- planning and evaluating activities;
- preparing and tidying-up own materials; and
- taking care of personal property.

## 2.2.4. Evaluation

In the Queensland Interactional Curriculum, the following four aspects of evaluation are emphasised:

(i) **Child self-evaluation:**

(a) satisfaction and mastery in terms of the experiences undergone in the educational environment;

(b) intentions in the educational environment.

Teachers will facilitate this evaluative process through group discussion and by asking leading questions of individual children.

(ii) **Teacher self-evaluation:**

(a) satisfaction and mastery in terms of creating desirable 'matches';

(b) satisfaction in terms of personal values.

This is a reflective process of relating values and planning with observations and personal experiences.

(iii) **Observations of children** in terms of personal modes for interacting and developmental level:

(a) anecdotal records of behaviour considered significant;

(b) check-lists devised by the teacher;

(c) noting questions asked;

(d) noting answers to teacher's questions; and

(e) interpreting representations of experiences.

(iv) **Program effectiveness:**

(a) team-evaluation by those involved in planning and implementing the program;

(b) check-lists used by researchers, advisory teachers or others, at the request of the teacher; and

(c) discussion with parents and others who have expectations regarding the program.

## 2.2.5. Suggestions for Implementing an Open Framework Curriculum

Teacher initiation of activity in an open framework curriculum begins at the level of deciding what values and what developmental principles are appropriate as a foundation for all future curriculum decisions to be made by the teacher. The next initiative involves the establishment of a learning environment that reflects those values and principles. For instance, a learning environment which reflected the values and principles laid down by the Queensland Interactional Curriculum could involve the following strategies:

(i) **Establishing interest centres** where children engage in activities which challenge them and promote increased satisfaction and mastery. The choice of which interest centres to establish would depend on the age of the children, their cultural background, as well as the physical facilities available. In Queensland both indoor and outdoor space can be readily utilised for establishing interest centres. Ideas for interest centres include:

(a) Climbing, sand and water, construction, quiet area, home area.

(b) Construction, science and mathematics, library, movement, art.

(c) Puzzles and problems, creative expression, reading and representing, movement and drama.

The following factors should also be considered when establishing an interest centre:

(a) Equipment should be organised so that children are able to share responsibility for it. Children should be familiar with the names and contents of interest centres, and shelves should be labelled to enable equipment to be classified and stored easily.

(b) Equipment and activities chosen by the teacher should be meaningful to the children involved.

(c) Equipment and activities should enrich and extend the interactions that children engage in.

(ii) **Establishing a consistent routine** where children are able to anticipate events, and gradually take part in deciding the pattern of these events. Elements of the routine could include:

(a) Child initiated activity, where each child decides what he is going to do from the range of choices available in each interest centre. The plan-work-recall routine used in the High/Scope Cognitively Oriented Curriculum is one way of ensuring that the daily routine contains a set period where the child feels able to decide what will be done and how it is to be evaluated. He may indicate his plan to an adult who helps him think through and elaborate his ideas and record his plan for him before he gets started. Where the adult/child ratio allows, children might plan in a small group of five or six. The child completes the planning and doing process by recalling, i.e. by looking back at what he has done during the work time. Recall time allows the child the opportunity to recall and represent in some form what he has done at work time. Recalling may be done by talking about actions; showing something used at work time; sharing a product either completed or still in progress; drawing pictures; miming actions; or writing stories.

(b) Work time, which might be centred indoors and/or outdoors depending on the plan made. Teachers should be aware of the quality of interaction between child and child and between adult and child so that the excitement of exploration and the joy of discovery are integral parts of work-time.

(c) Tidy-up time, where children learn where things belong, and why certain objects are stored together.

(d) Grouping children for particular learning experiences. Small and large teacher-led groups may be viewed as tools for introducing to children possibilities and choices of which they may not otherwise be aware. Becoming a contributing member of a group is a learned technique, and can be fostered by providing a setting where groups form spontaneously around an adult for stories, music, games, etc. During small group time, five to eight children, of varying abilities, and an adult work together at some activity pre-planned by the teacher, the form of interaction being essentially the same as that used during work time. Large group time can be most profitable if kept short and sweet.

(e) Transitions between one period of the day and another, where children know which part of the routine is next.

(f) Food-breaks, which provide experiences that are consistent with those of the rest of the program.

(iii) **Encouraging interactions** with the physical environment and with the people in that environment. Ideas include:

(a) The use of open-ended questioning to draw the child's attention towards particular activities and to encourage deeper exploration of them.

(b) The use of planning boards, attractive displays, photographs and models to encourage a child to explore some previously unfamiliar territory.

(c) Joint activities, either child-initiated or teacher-initiated to encourage co-operative play between children.

(d) Encouraging the use of language as a medium of communication and a tool for thinking to enrich social interaction, e.g.:

- Using conversational style when talking with children;
- describing things or actions for the child if he is not yet ready to put these into words of his own;
- presenting a model of standard English without denigrating the child's native dialect;
- asking open ended questions;
- encouraging children to verbalise choices, observations, plans, recollections, relations and feelings in their own words;
- writing down and reading back the child's comments;
- focusing on what the child says rather than how he says it; and
- having fun with language, e.g. rhyming, making up stories, listening to poems.

(iv) **Helping students to plan** what they are going to do by, for instance:

(a) Providing and identifying alternatives.

(b) Extending a plan via questions and suggestions.

(c) Observing and extending what children are doing instead of arbitrarily imposing new directions.

(d) Encouraging children to work together.

(e) Helping children to represent their plans.

(f) Assisting children to recall and represent what has been accomplished.

(v) **Providing experiences** in several levels and modes of representation, from concrete to abstract. Some of the following ideas may prove useful:

(a) Beginning a learning sequence or theme with a concrete (object level) experience.

(b) Providing opportunities for producing creative symbolic representations through art, media, role play, movement, dance, or construction materials.

(c) Providing opportunities to interpret symbolic representations, e.g. drawings, photographs, books, models and pantomime.

(d) Establishing a positive inter-active setting in which children can learn actively, additional media he might use.

(e) Demonstrating the functions of written language.

(vi) **Involving parents and teacher-aides** in the educational program by providing opportunities for them to:

(a) Interact with small-group sessions.

(b) Observe children at work, and use check-lists provided by the teacher.

(c) Support and encourage children during work periods.

(vii) **Assisting children to resolve conflicts** involving trust/mistrust, autonomy/shame, initiative/guilt, industry/inferiority by:

(a) Setting limits and enforcing them consistently.

(b) Helping children find acceptable alternatives to aggressive behaviour.

(c) Giving children positive feedback, with reasons.

(d) Suggesting ways a child might extend what he is doing by representing it, or suggesting creatively, with the support of peers and adults.

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The participants in the open framework seminar held from 2 October until 12 November, 1976, were:

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